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Emma's cookies

As probably most of you know – we celebrate this year the 200 year anniversary of the birth of **Charles Darwin**. He was born February 12th 1809 and his book "*On the origin of species*" was published 1859 - 150 years ago.

During this year we will publish both articles and experiments some of which may be suitable for teaching evolutionary biology.

One experiment, to be published in Bioscience Explained, is called "*I ´m a worm, get me out of here*"! It has been developed by Dean Madden for Wellcome Trust for the celebration year.

There are already some articles and experiments which are suitable for teaching evolution, for example

Comparative fish-dissection – number 5.1

1. Influenza virus bioinformatics – number 3.1
2. Investigating plant evolution – number 3.2
3. Track the evolution – number 4.2
4. Many already published articles may form a suitable background for discussions on evolution are already on the web, e.g, Intelligent Design – number 4.2, Plant breeding – number 3.2, Avian flu – number 3.1, Ancient DNA-research – number 2.2 and Can blue-eyed parents get brown-eyed children? – number 4.1.



Emma Darwin

Maybe someone wants to celebrate Darwin's birthday with a cake: Here are two recipes from his wife's recipe book: *Mrs Charles Darwin's recipe book* by Dusha Bateson and Weslie Janeway (2008) Glitterati, New York. ISBN: 978 0 9801557 3 0.

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Here is Emma's recipe for **ginger biscuits** (translated into modern units and temperatures):

- 120 ml honey
- 110 g brown sugar
- 50 g butter
- 15 g ground ginger
- 225 g flour

Pre-heat oven to 160°C

1. Put the first three ingredients in a small saucepan and place it over a gentle heat - just enough to melt the butter - and blend everything together.
2. Sift the flour and powdered ginger into a bowl, make a well in the centre, and pour in the contents of the saucepan.
3. Mix together and knead the dough with your hands for 3-4 minutes. Cover the bowl with a cloth and leave to rest in a warm place for 1-2 hours.
4. Roll out onto a floured surface to about 5 mm thickness. Cut into shapes and place on a lightly greased and floured baking sheet. This dough doesn't spread or rise much, so you can place them close together, but not touching.
5. Bake for about 12 minutes. Watch them carefully and don't let them darken around the edges; the flavour is best when they are still a rich 'ginger' colour.
6. Carefully lift them onto a wire rack. They will become crisp as they cool.



Scotch cake recipe

Ingredients

- 225 g butter
- 225 g sugar (brown or caster sugar -- caster sugar is what the Americans call 'superfine' -- it's not icing sugar, which is like powder, but it is finer than the normal sort of sugar you might put in your tea)
- 2 large eggs
- 75 ml brandy
- 2 tablespoons orange juice
- 225 g candied peel or a mixture of fruit
- 280 g self-raising flour

1. Put the butter, sugar, fruit, brandy and orange juice in a pan. Simmer VERY gently for 5 minutes.
2. Meanwhile, line a 20 x 20 x 5 cm square cake tin with baking parchment or grease-proof paper.
3. Allow the mixture to cool to room temperature.
4. Switch on the oven so that it heats up to 160 °C.
5. Beat in the eggs into the fruit etc.
6. Fold the flour into the fruit etc mixture.
7. Spoon the mixture into the cake tin and spread it out evenly.
8. Bake for about 1 hour (test with a skewer in the usual way after 45 minutes, however, to see if it's cooked).
9. Allow the cake to cool in the tin.

This can be eaten warm or stored in an airtight container and allowed to 'mature' for a day or two.

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The recipes have been given to me from Dean Madden, NCBE, UK.